



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,639	01/22/2001	Masahiro Maeda	Q62740	6818
23373	7590	11/10/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			DAY, HERNG DER	
			ART UNIT	PAPER NUMBER
			2128	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/765,639	Applicant(s) MAEDA, MASAHIRO	
	Examiner Herng-der Day	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Applicant's Amendment ("Amendment") to Office Action dated July 19, 2005, mailed September 20, 2005.

1-1. Claims 1-12 have been amended. Claims 1-12 are pending.

1-2. Claims 1-12 have been examined and rejected.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-5 are rejected under 35 U.S.C. 101 because the inventions as disclosed in claims are directed to non-statutory subject matter.

3-1. Regarding claims 1-5, it appears to be directed merely to the manipulation of an abstract idea of evaluating the reflection performance of a reflecting mirror without resulting in a practical application producing a concrete, useful, and tangible result. Specifically, it is not tangibly embodied and not in the technological arts because it could be practiced with pencil and paper. In other words, the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment, or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

3-2. The Examiner acknowledges that even though the claims are presently considered non-statutory they are additionally rejected below over the prior art. The Examiner assumes the

Art Unit: 2128

Applicants will amend the claims to overcome the 101 rejections and thus make the claims statutory.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-12 are rejected under 35 U.S.C. 102(a) as being anticipated by BRO, “ReflectorCAD User’s Guide”, Breault Research Organization, 1999, pages 1-87.

5-1. Regarding claim 1, BRO discloses a method of evaluating the reflection performance of a reflecting mirror designed for a vehicle lamp, comprising

a) entering design information and position information, the design information representing a plurality of reflecting basic surfaces which constitute the reflecting mirror (segments, page 28, section “Creating and Aiming the First Segment”, page 39, section “Creating More Segments”), and the position information containing a light source position in the vehicle lamp (set the bulb’s filament positions for X, Y, and Z, page 26, step 9); and

b) displaying attribute information (If a segment is selected, its output is displayed, page 65, paragraph 6) concerning an attribute indicative of whether imaginary light from the light source position can effectively reach each of a first plurality of areas (initial results in output view, page 38, Figure 24) into which a first reflecting basic surface, selected from among the plurality of reflecting basic surfaces (First Segment, page 28, section “Creating and Aiming the

Art Unit: 2128

First Segment”), is divided on the basis of the design information (The Output Calculation Quality slider sets the quality of output. More samples results in higher accuracy, page 25, paragraph 3; Figure 9; more samples implies the segment has been divided into more areas);

wherein the plurality of reflecting basic surfaces are discrete surfaces (segments, page 17, Figure 2, Reflector View).

5-2. Regarding claim 2, BRO further discloses comprising:

c) displaying attribute information (If a segment is selected, its output is displayed. Otherwise, the total output of all segments is shown, page 65, paragraph 6) concerning an attribute indicative of whether imaginary light from the light source position can effectively reach each of a second plurality of areas (initial results in output view, page 38, Figure 24) into which each of the remaining reflecting basic surfaces (more segments, page 39, section “Creating More Segments”) is divided on the basis of the design information (The Output Calculation Quality slider sets the quality of output. More samples results in higher accuracy, page 25, paragraph 3; Figure 9; more samples implies the segment has been divided into more areas).

5-3. Regarding claim 3, BRO further discloses comprising:

d) generating divided area information so as to be associated with the design information (samples, page 25, paragraph 3; more samples implies the segment has been divided into more areas), the divided area information being indicative of the first plurality of areas of the first reflecting basic surface selected from among the plurality of reflecting basic surfaces and divided into the first plurality of areas on the basis of the design information (Increasing sampling gives

Art Unit: 2128

more accurate results, page 65, paragraph 5; increasing sampling implies the segment has been divided into more areas);

e) making a determination, on the basis of the divided area information and the design information, as to whether the imaginary light from the light source position can effectively reach each of the first plurality of areas of the first reflecting basic surface (ReflectorCAD can quickly calculate the approximate output, page 65, paragraph 1); and

f) generating the attribute information for each of the first plurality of areas on the basis of the determination, the attribute information being associated with at least one of the design information and the divided area information (the results of an output calculation are available, page 65, paragraph 6).

5-4. Regarding claim 4, BRO further discloses comprising:

g) applying (d) to a second reflecting basic surface sequentially selected from the remaining reflecting basic surfaces to update the divided area information, the divided area information being associated with the design information (To calculate the output of all segments, page 65, paragraph 2);

h) applying (e) and (f) to the second reflecting basic surface sequentially selected from the remaining reflecting basic surfaces to update the attribute information, the attribute information being associated with at least one of the design information and the divided area information (To calculate the output of all segments, page 65, paragraph 2); and

i) displaying the updated attribute information concerning the attribute with respect to each of the plurality of areas into which each of the remaining reflecting basic surfaces is divided

Art Unit: 2128

on the basis of the design information (the total output of all segments is shown, page 65, paragraph 6).

5-5. Regarding claim 5, BRO further discloses the step (c) includes:

providing an evaluation point within each of the first plurality of areas; generating a straight line, the straight line connecting the evaluation point to the light source position; and making a determination as to whether the straight line intersects another reflecting basic surface other than the first reflecting basic surface which is associated with the first plurality of areas (In ReflectorCAD, you can easily check whether such discontinuities are shadowed, page 16, bullet 5).

5-6. Regarding claims 6-8, these system claims include equivalent method limitations as in claims 1-3 and are anticipated using the same analysis of claims 1-3.

5-7. Regarding claims 9-11, these storage medium claims include equivalent method limitations as in claims 1-3 and are anticipated using the same analysis of claims 1-3.

5-8. Regarding claim 12, BRO discloses the program further includes:

a division process provided so as to generate divided area information (samples, page 25, paragraph 3; more samples implies the segment has been divided into more areas), the divided area information including area data on a second plurality of areas into which each of the reflecting basic surfaces is divided on the basis of the design information, the divided area information being associated with the design information (Increasing sampling gives more accurate results, page 65, paragraph 5; increasing sampling implies the segment has been divided into more areas; To calculate the output of all segments, page 65, paragraph 2);

a determination process provided so as to make a determination, on the basis of the divided area information and the design information, as to whether imaginary light from the light source position can effectively reach of the second plurality of areas of each of the reflecting basic surfaces (ReflectorCAD can quickly calculate the approximate output, page 65, paragraph 1; To calculate the output of all segments, page 65, paragraph 2);

an attribute process provided so as to generate, on the basis of the determination, the attribute information for each of the second plurality of areas of each reflecting basic surface, the attribute information being associated with at least one of the design information and the divided area information (To calculate the output of all segments, page 65, paragraph 2); and

another display process provided so as to display the attribute information for each of the second plurality of areas into which each of the remaining reflecting basic surfaces is divided on the basis of the design information (the total output of all segments is shown, page 65, paragraph 6).

Applicant's Arguments

6. Applicant argues the following:

6-1. 35 U.S.C. § 112 Rejection

(1) "The informality noted by the Examiner has been corrected" (page 9, paragraph 4, Amendment).

6-2. 35 U.S.C. § 101 Rejection

(2) “the displayed attribute information (a non-limiting example of which is shown in FIG. 13, and discussed on pages 42 and 43 of the instant Application) clearly provides a useful and tangible result” (page 9, last paragraph through page 10, first paragraph, Amendment).

6-3. 35 U.S.C. § 102 Rejection

(3) “Accordingly, this ‘output view’ (or any other disclosed output in BRO) fails to provide any particular information regarding the reflector surface; let alone any particular information that indicates whether ‘each of a plurality of areas’ of that surface effectively reflect light” (page 11, paragraph 1, Amendment).

(4) “Applicant respectfully submits that, since BRO fails to teach or suggest any further division of its ‘segments,’ it cannot reasonably be read as disclosing the provision of ‘a plurality of areas’ within its disclosed segment” (page 11, paragraph 2, Amendment).

Response to Arguments

7. Applicant’s arguments have been fully considered.

7-1. Applicant’s argument (1) is persuasive. The rejections of claim 11 under 35 U.S.C. 112, second paragraph, in Office Action dated July 19, 2005, have been withdrawn.

7-2. Applicant’s argument (2) is not persuasive. Under current PTO practice, the claimed invention does not recite a concrete, useful, and tangible result because, for example, none of the claimed steps require use of hardware to accomplish the step.

7-3. Applicant’s argument (3) is not persuasive. BRO discloses “Aiming Segments”, “Moving the Aim Region”, and “Calculating the Output” at pages 32- 38. A plot of a segment’s output (attribute information), not the individual divided areas, is displayed in the “Output View”

Art Unit: 2128

after the segment has been aimed and the output (attribute information) of each sample (area) has been calculated which meets the claimed limitation.

7-4. Applicant's argument (4) is not persuasive. BRO discloses at page 65, paragraph 5, "You can control the level of quality with the Output Calculation Quality slider bar in the Output Properties dialog box. Increasing sampling gives more accurate results but a longer calculation time". In other words, more samples or increasing sampling implies a segment has been divided into more areas to give more accurate results but a longer calculation time.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Art Unit: 2128

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day
November 3, 2005

H.D.

Thai Phan
Thai Phan
Patent Examiner
Au: 2128